

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-100

NPDES NO. CA0037702

WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. East Bay Municipal Utility District, hereinafter called the discharger, by application effective January 29, 1979, has applied for renewal of waste discharge requirements and reissuance of a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The discharger presently discharges an annual dry weather average of 65 million gallons per day (mgd) of mixed domestic and industrial waste from its wastewater treatment plant located in Oakland into San Francisco Bay, a water of the United States, at latitude 122 Deg/20 min/55 sec. and longitude 37 Deg/49 min/2 sec. The waste receives secondary treatment with chlorination and dechlorination, and is discharged through a submarine outfall (minimum dry-weather initial dilution of 100:1) about 550 feet south of the Oakland-San Francisco Bay Bridge and 250 feet west of the Alameda-San Francisco County line. Average design flow (secondary) is 120 MGD; and 290 MGD (primary).
3. A Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) was adopted by the Board in April 1975. The Basin Plan contains water quality objectives for San Francisco Bay and contiguous waters.
4. The existing and potential beneficial uses of San Francisco Bay and contiguous waters include:
 - a. Industrial service and process supply
 - b. Navigation
 - c. Recreation
 - d. Commercial and sport fishing
 - e. Fish and wildlife habitat and resting areas
 - f. Shellfishing
 - g. Fish spawning areas
5. The discharger, as the lead agency, has prepared a Final Environmental Impact Report dated April 1972 for its now completed wastewater management project in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.).

6. The project has the following adverse effect on the environment: minor amounts of pollutants will be discharged to the receiving waters.
7. The adverse environmental effect of discharges of effluent to San Francisco Bay is mitigated by the Discharge Prohibition, Effluent and Receiving Water Limitations, and Provisions of this Order.
8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
10. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator of the U. S. Environmental Protection Agency has no objections.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge of an effluent in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. Settleable Matter	ml/l-hr	0.1	-	-	0.2
b. BOD	mg/l	30	45	-	-
	lbs/day	52,600	-	-	-
	(kg/day)	23,850	-	-	-
c. Suspended Solids	mg/l	30	45	-	-
	lbs/day	52,600	-	-	-
	(kg/day)	23,850	-	-	-
d. Grease & Oil	mg/l	10	-	20	-
	lbs/day	17,500	-	34,600	-
	(kg/day)	7,950	-	15,700	-
e. Chlorine Residual	mg/l	-	-	-	0.0

2. The arithmetic mean of the value for BOD and Suspended Solids effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (85 percent removal).
3. Representative samples of the effluent shall not exceed the following limits more than the percentages indicated:

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>6 Month Median</u>	<u>Daily Maximum</u>
Arsenic	mg/l (kg/day)	0.01 (4.54)	0.04 (18.2)
Cadmium	mg/l (kg/day)	0.02 (9.08)	0.08 (36.4)
Total Chromium	mg/l (kg/day)	0.04 (18.2)	0.16 (72.8)
Copper	mg/l (kg/day)	0.2 (90.8)	0.8 (364)
Lead	mg/l (kg/day)	0.1 (45.4)	0.4 (182)
Mercury	mg/l (kg/day)	0.001 (0.454)	0.004 (1.82)
Nickel	mg/l (kg/day)	0.1 (45.4)	0.4 (182)
Silver	mg/l (kg/day)	0.02 (9.08)	0.08 (36.4)
Zinc	mg/l (kg/day)	0.3 (136.3)	1.2 (545)
Cyanide	mg/l (kg/day)	0.1 (45.4)	0.4 (182)
Phenolic Compounds	mg/l (kg/day)	0.5 (227)	2.0 (908)
Total Identifiable Chlorinated Hydrocarbons*	mg/l (kg/day)	0.002 (0.908)	0.004 (1.82)

*Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

4. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.
5. In any representative set of samples, the wastes as discharged shall meet the following limit on toxicity:

The survival of test fishes in 96-hour bioassays of the effluent shall be a 90 percentile value of not less than 50 percent survival. Exceptions to this limitation may be granted, and revised toxicity requirements established by the Regional Board, pursuant to public hearing, if the discharger can demonstrate to the satisfaction of the Board that the following conditions are met:

1. The waste is discharged through a deepwater outfall which achieves rapid and high initial dilution and that the waste is rapidly rendered nonacutely toxic upon discharge, and
2. The toxicants in the waste are nonconservative constituents which are rapidly decayed in the receiving water; or the toxicants in the waste are conservative constituents for which water quality objectives have been established. The Regional Board will, in such cases, establish effluent mass emission rates for such constituents.

B. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge shall not cause the following limits to be exceeded in waters of the State any place within one foot of the water surface:
 - a. Dissolved oxygen 5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum.
 - c. pH Variation from natural ambient pH by more 0.2 pH units.
 - d. Total coliform organisms 240 MPN/100 ml, median of five consecutive samples, maximum.

10,000 MPN/100 ml, any single sample, maximum.
 - e. Un-ionized ammonia as N 0.025 mg/l annual median
0.4 mg/l maximum
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Discharge Prohibitions

1. There shall be no bypass or overflow of untreated wastewater to waters of the State, either at the treatment plant or from any part of the collection system which is under the control of East Bay Municipal Utility District, except as provided under NPDES Permit CA0038440 for wet weather.
2. The average dry weather flow shall not exceed 120 mgd. Averages shall be determined over three consecutive months each year.

D. Provisions

1. The discharger shall review and update annually its contingency plan as required by Regional Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be a basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
2. The discharger shall comply with the Self-Monitoring Reporting Program as ordered by the Executive Officer.
3. Orders 74-77, 75-72, 76-125, and 78-41 are hereby rescinded.
4. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated April 1977 except A.12, A.16, and B.3.
5. If the discharger elects to document compliance with the coliform receiving water limitation exclusively in the effluent and so notifies the Board in writing, the frequency of receiving water coliform monitoring will be reduced accordingly; PROVIDED, HOWEVER, that if such election is made, a violation of the coliform requirement in the effluent shall constitute a violation of the coliform receiving water limitation.
6. This permit shall be modified, or alternatively revoked and reissued as soon as practicable to incorporate an approved publicly owned treatment work (POTW) pretreatment program or a compliance schedule for the development of a POTW pretreatment program as required under Section 402(b) (8) of the Clean Water Act and implementing regulations or by the requirements of the approved state pretreatment program as appropriate.
7. This Order becomes effective immediately, and expires August 21, 1984. The discharger must file a Report of Waste Discharge not later than 180 days in advance of such date as an application for issuance of new waste discharge requirements.

I, Fred H. Diener, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 21, 1979.

Attachments:

Standard Provisions & Reporting
Requirements 4/77
Resolution No. 74-10
Self-Monitoring Program

FRED H. DIENER
Executive Officer